UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,882	09/08/2003	William Gobush	20002.0311	8086

79175 7590 09/26/2008

HANIFY & KING PROFESSIONAL CORPORATION
1875 K STREET, NW
SUITE 707
WASHINGTON, DC 20006

EXAMINER	
SAGER, MARK ALAN	

ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
09/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/656,882	GOBUSH, WILLIAM	
	Examiner	Art Unit	
	M. Sager	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/11/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6758759 and over claims 1-36 of U.S. Patent No. 7086954 and over claims 1-24 of U.S. Patent No. 7291072 each in view of Sullivan (4158853). Gobush ('759, '954, '639, and 072) claim an apparatus for capturing a ball or club but lacks markers on ball and club. Sullivan discloses a method and system for tracking swing/trajectory using a camera teaching markers on ball and club (2:7-27) so as to optically enhance image captured for analysis of swing/trajectory. Thus, it would have been obvious to an artisan at a time prior to the invention to apply the process of markers on ball and club as taught by Sullivan to improve the apparatus of Gobush for the expected result of improved image capture for analysis of swing and trajectory.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Gobush (7291072). Gobush discloses an apparatus (2:52-3:48, 4:37-8:40, 11:32-14:28, 15:15-17:60) having a camera system including a filter that allows light between particular wavelengths where the camera is an electrical sensor such as CCD (2:52-3:48, 4:37-8:40, 11:32-14:28, 15:15-17:60), a strobe lamp (2:52-3:48, 4:37-8:40), a second strobe lamp (2:52-3:48, 4:37-8:40), a club and ball each having markers such as retro-reflective and fluorescent (2:52-3:48, 8:43-10:55), second strobe is off-axis such as due to use of beam splitter, reflective element or ring shaped strobe (2:52-3:48, 4:37-8:40, 12:62-13:24), strobe lamp is filtered (2:52-3:48, 4:37-8:40, 11:32-14:28, 15:15-17:60), where light source includes an LED such as an LED strobe (2:52-3:48, 4:37-8:40, 11:32-14:28, 15:15-17:60). Gobush '072 incorporates Gobush 6241622 that uses ring shaped strobe having plurality of LEDs.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

5. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Gobush (7086954). Gobush discloses an apparatus (1:49-3:34, 4:1-7:56, 9:51-10:45, 11:32-14:21) having a camera system including a filter that allows light between particular wavelengths where the camera is an electrical sensor such as CCD (1:49-3:34, 4:1-7:56, 9:51-10:45, 11:32-14:21), a strobe lamp (1:49-3:34, 4:1-7:56, 9:51-10:45, 11:32-14:21), a second strobe lamp (1:49-3:34, 4:1-7:56, 9:51-10:45, 11:32-14:21), a club and ball each having markers such as retro-reflective and fluorescent (1:49-3:34, 7:59-9:32, 11:32-14:21), second strobe is off-axis such as due to use of beam splitter, reflective element or ring shaped strobe as disclosed in Gobush 6241622 incorporated therein, strobe lamp is filtered (1:49-3:34, 4:1-7:56, 9:51-10:45, 11:32-14:21), where light source includes an LED such as an LED strobe (1:49-3:34, 4:1-7:56, 9:51-10:45, 11:32-14:21). Gobush '072 incorporates Gobush 6241622 that uses ring shaped strobe having plurality of LEDs.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 29 is rejected under 35 U.S.C. 103(a) as being obvious over Gobush ('072 and '954).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in

the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2). Where the dual strobe LEDs of Gobush ('072 and '954) lacks disclosing including the number of LEDs being 100, 200 or 300, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8. Such is the situation with mere duplication of light source as a number of LED elements. The criticality of the number of LEDs is not provided in so far as there is no stated problem that the claimed 100, 200 and 300 LEDs solve over the dual strobe LEDs taught by Gobush. Gobush would work equally well with 100, 200 or 300 LEDs. Thus it would have been obvious to a routineer at a time prior to the invention to duplicate the light sources of Gobush since the component light sources are performing the same function with same structure.

9. Claims 3, 12-13, 18 and 20-21 are rejected under 35 U.S.C. 103(a) as being obvious over Gobush ('072 and '954) in view of Sullivan (4158853).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference

under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2). Alternatively, Gobush lacks disclosing off-axis as claimed. However, in optics it is not to use reflective surface/panel or beam splitter so as to direct light/image. In addition, Sullivan discloses camera system with an angle between 30 degrees. Each camera is deemed to include flash/shutter as lighting. Thus, it would have been obvious to an artisan to apply the process of off-axis as known or as taught by Sullivan to improve the apparatus of Gobush for the expected result of lighting object in view for improved image capture. There is no stated problem solved for the particularly claimed angles.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Sager whose telephone number is 571-272-4454. The examiner can normally be reached on T-F, 0700-1730 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Sager/
Primary Examiner, Art Unit 3714